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**Notice of Allowability**

Application No.

10/713,439

Examiner

Kara E. Geisel

Applicant(s)

SCHMITT, KEVIN

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed 14 November 2003.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 1005.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 1103
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Gregory A. Tooley Jr.  
Supervisory Patent Examiner

## **DETAILED ACTION**

### ***Preliminary Amendment***

The preliminary amendment filed on October 21<sup>st</sup>, 2004, has been entered into this application.

### ***Information Disclosure Statement***

The information disclosure statement filed on November 14<sup>th</sup>, 2003 has been considered by the examiner.

### ***Drawings***

In order to make the drawings more readily readable, the parts of the apparatus shown, in Fig. 4 in block diagram form require appropriate descriptive legends. See 37 CFR § 1.84(o)

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Examiner's Reasons for Allowance***

Claims 1-20 are allowed over the prior art of record.

The following is an examiner's statement of reasons for allowance:

As to claim 1, the prior art of record, taken alone or in combination, fails to disclose or render obvious an apparatus for determining a color and brightness of an LED in a printed circuit board comprising a sensor having a plurality of filters arranged in a matrix, and an output probe connected to the sensor, the output probe providing a color output and a brightness output in a single signal, in combination with the rest of the limitations of claim 1.

As to claim 5, the prior art of record, taken alone or in combination, fails to disclose or render obvious an apparatus for determining a color and brightness of an LED in a printed circuit board comprising a sensor having a plurality of filters having different colors, and an output probe connected to a microprocessor, the output probe outputting a color and a brightness through a single signal wire, in combination with the rest of the limitations of claim 5.

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As to claim 10, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for testing the output of an LED comprising determining a color and a brightness of the LED with a microprocessor connected to a sensor, and sending a single output signal from the sensor, in combination with the rest of the limitations of claim 10.

As to claim 16, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for testing the output of an LED comprising converting a wavelength of a color to a frequency, determining the color of the LED from a relationship of a count relative to the frequency, encoding the frequency to a pulse width, measuring a DC average of the pulse width to obtain a brightness of the LED, and sending a single output signal from the sensor, in combination with the rest of the limitations of claim 16.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### *Additional Prior Art*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art made of record is Lippmann et al. (USPN 6,623,142), and Duijve (US Pubs 2004/0251404).

Lippmann discloses a method for determining a color and a brightness of an LED in a printed circuit board comprising positioning a sensor adjacent an LED, and determining a color and a brightness of the LED with a microprocessor connected to the sensor.

Duijve discloses an apparatus for determining a color and a brightness of an LED in a printed circuit board comprising a sensor having a plurality of filters arranged in a matrix, and an output probe connected to the sensor, the output probe providing a color output in a signal.

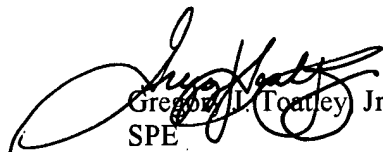
#### *Conclusion*

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kara E Geisel whose telephone number is 571 272 2416. The examiner can normally be reached on Monday through Friday, 8am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on 571 272 2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571 273 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Gregory J. Toatley, Jr.  
SPE  
Art Unit 2877  
13 Oct 05

K.G.  
KEG  
October 11, 2005